

Amendments to the Drawings:

The Applicant presents one replacement sheet(s) and one annotated sheet showing the changes made to the drawings.

The Office has objected to the drawings under 37 C.F.R. § 1.121(d) it appears “that references “140” and “142” are reversed in the drawings.” Applicant has made the appropriate correction to the drawings. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the objection.

Attachment: Replacement Sheet

 Annotated Sheet Showing Changes Made

REMARKS

The Examiner has rejected claims 1-20. Claims 1 and 10 have been amended to clarify the features of the invention. As a result, claims 1-20 are pending for examination with claims 1 and 10 being independent claims. The amendments made find support in the specification, and do not constitute new matter.

The Examiner has rejected Claim 1 and 10 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,557,177 to Hochmuth ("Hochmuth").

Applicant has amended Claim 1 and 10 to call for:

“a unidirectional stiffener having an upper interlocking ladder section having a first set of flexible sidebars, and a lower interlocking ladder section having a second set of flexible sidebars”

(underlining showing amendment).

As such, Applicant submits that Claim 1 and 10 are not anticipated by Hochmuth under 35 U.S.C. §102(b).

The present invention provides:

“the stiffener 18 shown in Figs. 4-7 is formed from upper and lower interlocking ladder structures 40, 42 that are snapped together to form the unidirectional stiffener 18. The lower ladder structure 40 includes a pair of parallel flexible sidebars 44 having a top 46 and a bottom 48. Evenly spaced rungs 50 joined to the top 46 of each lower ladder structure sidebar 44 join the lower ladder structure sidebars 44 together to form the lower ladder structure 40. Likewise, the upper ladder structure 42 includes a pair of parallel flexible sidebars 54 having a top 56 and a bottom 58.

Evenly spaced rungs 60 joined to the top 56 of each upper ladder structure sidebar 54 join the upper ladder structure sidebars 54 together to form the upper ladder structure 42. Preferably, the lower ladder structure 40 is molded as an integral piece from plastic, such as polypropylene, polyethylene, and the like, and the upper ladder structure 42 is molded as an integral piece from plastic. . . .”

“The upper ladder structure rungs 60 are spaced along the upper ladder structure sidebars 54 to form evenly spaced gaps 62 therebetween for receiving the lower ladder structure rungs 50. The upper ladder sidebars 54 are spaced further apart (i.e. have longer rungs) than the lower ladder structure sidebars 44, such that the lower ladder structure sidebars 44 fit between the upper ladder structure sidebars 54 and the bottoms 48, 58 of the sidebars 44, 54 are substantially even when the lower ladder structure rungs 50 are interdigitated with the upper ladder structure rungs 60.”

(page 6, line 13-page 7, line 9) (underlining added for emphasis) and

“When the lower ladder structure 40 is snapped together with the upper ladder structure 42, such that the rungs 50, 60 are interdigitated and the bottoms 48, 58 of the sidebars 44, 54 are substantially even, the sidebars 44, 54 can only bend in one direction around an axis below the bottom 48, 58 of the sidebars 44, 54. Bending the sidebars 44, 54 in an opposite direction around an axis above the top 46, 56 of the sidebars 44, 54 is prevented by the interdigitated rungs 50, 60 which engage each other to prevent the opposite direction bending.”

(page 7, line 3-16) (underlining added for emphasis).

Hochmuth, on the other hand provides:

“The reinforcement members are formed as block-like formations
which are arranged adjacent to one another and not as gutter or
channel formations which overlap one another.”

(Col 2, lines 15-18) (underlining added for emphasis) and

“According to FIG. 2, the reinforcement members 12 are formed
identically and are joined together or fitted to one another
individually in a chain-like manner, namely, by pivot joints 13.”

(Col 4, lines 4-7) (underlining added for emphasis)

Accordingly, Applicant submits that Claim 1 and 10 are not anticipated by Hochmuth under 35 U.S.C. §102(b).

Claims 2-9 are dependent on Claim 1. As such, Claims 2-9 are believed allowable based upon Claim 1.

Claims 11-20 are dependent on Claim 10. As such, Claims 11-20 are believed allowable based upon Claim 10.

The Examiner has alternatively rejected Claim 10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,557,177 to Hochmuth (“Hochmuth”) “as an obvious modification.” The Examiner states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to “use the device of Hochmuth to play football and prevent hyperextension in the method claimed by the applicant.” Applicant submits that the invention as claimed in Claim 10 is neither taught, described nor suggested in Hochmuth, even in view of being an obvious modification.

Applicant's Claim 10 calls for:

“a unidirectional stiffener having an upper interlocking ladder section having a first set of flexible sidebars, and a lower interlocking ladder section having a second set of flexible sidebars . . .”

(underlining added for emphasis).

The present invention provides:

“the stiffener 18 shown in Figs. 4-7 is formed from upper and lower interlocking ladder structures 40, 42 that are snapped together to form the unidirectional stiffener 18. The lower ladder structure 40 includes a pair of parallel flexible sidebars 44 having a top 46 and a bottom 48. Evenly spaced rungs 50 joined to the top 46 of each lower ladder structure sidebar 44 join the lower ladder structure sidebars 44 together to form the lower ladder structure 40. Likewise, the upper ladder structure 42 includes a pair of parallel flexible sidebars 54 having a top 56 and a bottom 58. Evenly spaced rungs 60 joined to the top 56 of each upper ladder structure sidebar 54 join the upper ladder structure sidebars 54 together to form the upper ladder structure 42. Preferably, the lower ladder structure 40 is molded as an integral piece from plastic, such as polypropylene, polyethylene, and the like, and the upper ladder structure 42 is molded as an integral piece from plastic . . . “

“The upper ladder structure rungs 60 are spaced along the upper ladder structure sidebars 54 to form evenly spaced gaps 62 therebetween for receiving the lower ladder structure rungs 50. The upper ladder sidebars 54 are spaced further apart (i.e. have longer

rungs) than the lower ladder structure sidebars 44, such that the lower ladder structure sidebars 44 fit between the upper ladder structure sidebars 54 and the bottoms 48, 58 of the sidebars 44, 54 are substantially even when the lower ladder structure rungs 50 are interdigitated with the upper ladder structure rungs 60.”

(page 6, line 13-page 7, line 9) (underlining added for emphasis) and

“When the lower ladder structure 40 is snapped together with the upper ladder structure 42, such that the rungs 50, 60 are interdigitated and the bottoms 48, 58 of the sidebars 44, 54 are substantially even, the sidebars 44, 54 can only bend in one direction around an axis below the bottom 48, 58 of the sidebars 44, 54. Bending the sidebars 44, 54 in an opposite direction around an axis above the top 46, 56 of the sidebars 44, 54 is prevented by the interdigitated rungs 50, 60 which engage each other to prevent the opposite direction bending.”

(page 7, line 3-16) (underlining added for emphasis).

Hochmuth, on the other hand provides:

“The reinforcement members are formed as block-like formations which are arranged adjacent to one another and not as gutter or channel formations which overlap one another.”

(Col 2, lines 15-18) (underlining added for emphasis) and

“According to FIG. 2, the reinforcement members 12 are formed identically and are joined together or fitted to one another individually in a chain-like manner, namely, by pivot joints 13.”

(Col 4, lines 4-7) (underlining added for emphasis).

As amended the claimed “unidirectional stiffener” is not a “reinforcement members” “formed identically” and “joined together or fitted to one another individually in a chain-like manner” as described in Hochmuth, and as such the Applicant submits that it has no relation to the present invention.

Accordingly, the Applicant submits that Claim 10 is not unpatentable over Hochmuth in view of being an “obvious modification.”

Claims 11-20 are dependent on Claim 10. As such, Claims 11-20 are believed allowable based upon Claim 10.

CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested. Based on the foregoing, Applicant respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant’s attorney at the telephone number listed below.

If this response is not considered timely filed and if the request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that has not otherwise been authorized by the enclosed Petition for Extension of Time, please charge any deficiency to Deposit Account No. 50-1234.

Respectfully submitted,
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ANNOTATED
SHEET

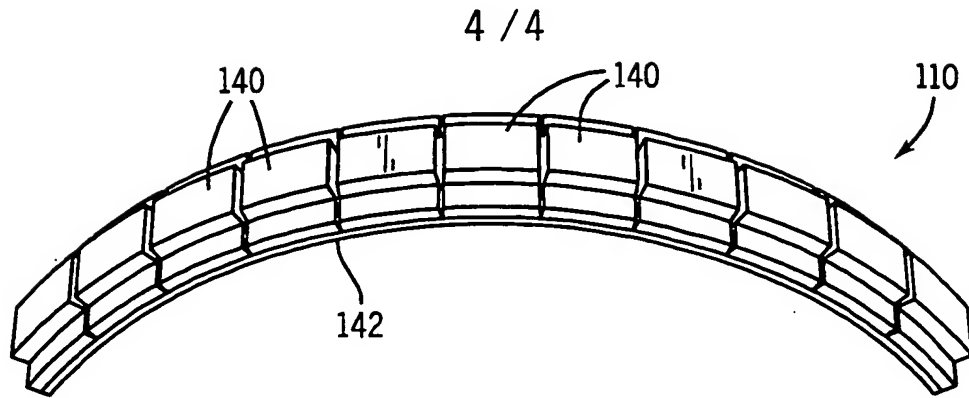


FIG. 8

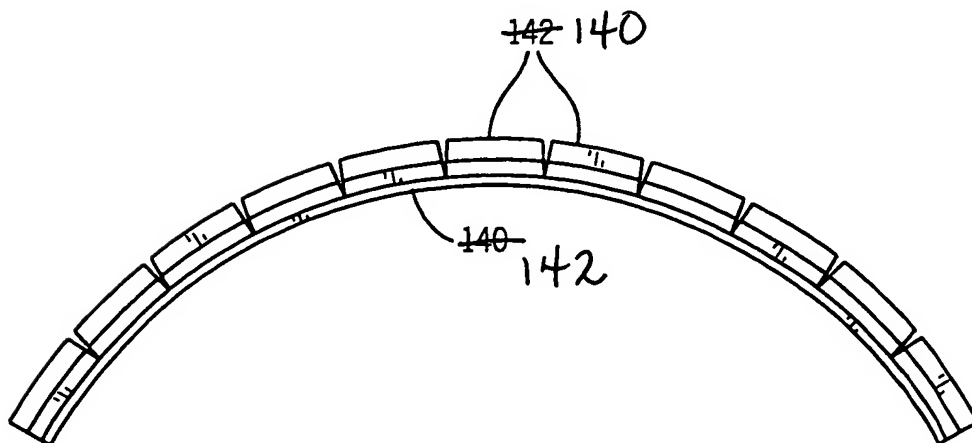
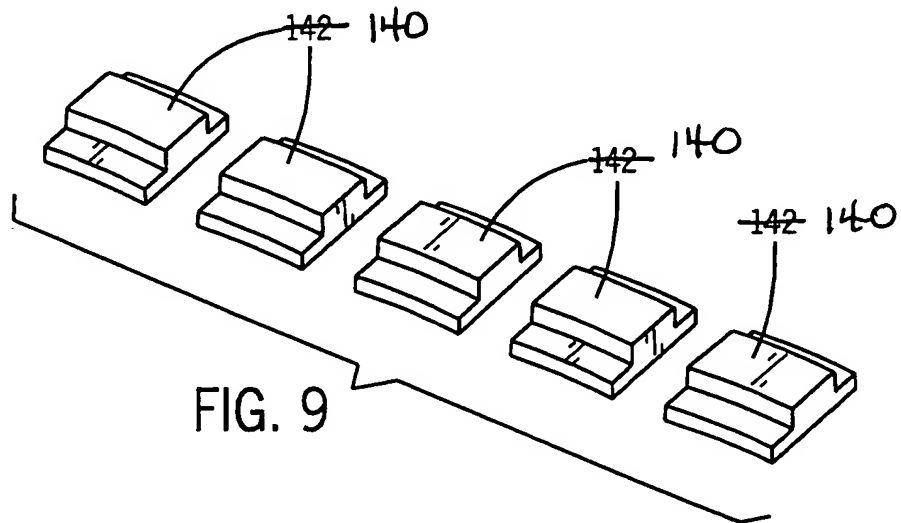


FIG. 10